

CLAIMS

I claim:

1. Apparatus for introducing a moldable thermoplastic material into an annular mold cavity to mold an annular thermoplastic part that has no
5 more than a single weld line therein, said apparatus comprising:

an annular mold cavity having an annular opening thereinto;

a fixed pin axially aligned with the opening of the mold cavity and being immovable during molding relative to the opening of the
10 mold cavity;

an annular sleeve surrounding the fixed pin and being moveable with respect to the fixed pin between a first position that is adjacent to the mold cavity and a second position that is away from the mold cavity to define, with the fixed pin when in the second position, an annular path for
15 introducing moldable thermoplastic material into the annular opening of the mold cavity; and

means for introducing moldable thermoplastic material into the annular path, at a location upstream of the second position of the annular sleeve, in no more than a single path.
20

2. Apparatus according to claim 1 wherein:

said means for introducing comprises a passage that extends at an acute angle with respect to a longitudinal central axis of said annulus mold cavity.
25

3. The method for molding an annular part from a moldable thermoplastic material, the annular part having no more than a single weldline therein, the method comprising:

providing an annular mold cavity having an opening
30 thereinto;

providing an annular path coaxially aligned with the annular mold cavity;

introducing a moldable thermoplastic material into the annular path in no more than a single stream; and

5 intermittently introducing a moldable thermoplastic material from the annular path into the mold cavity through the annular opening.

4. The method according to claim 3 wherein moldable
10 thermoplastic material is intermittently introduced into the annular path along a path of flow that extends at an acute angle with respect to a longitudinal central axis of the annular mold cavity.

5. An annular part that is molded from a suitable thermoplastic
15 material, said annular part having no more than a single weldline in an annular path therearound.